SECRET

DEPARTMENT OF THE AIR FORCE
OFFICE OF THE CHIEF OF STAFF
UNITED STATES AIR FORCE
WASHINGTON, D.C.

REPLY TO ATTN OF: AFCCS

21 December 1960

SUBJECT: USAF Inspector General Survey of SAMOS System, 10 April to 31 May 1961.

TO: ARDC (General Schriever)

1. Reference is made to your letter of 31 October 1960, subject as above, in which you request my support in the indefinite postponement of this survey.

2. I agree with you that any inspection of the SAMOS system should be postponed until management responsibilities have been fully defined and definite channels of direction clearly established. However, after extensive consideration of the problem, it has been considered that the management reorientation will have been completed and the program sufficiently advanced by April 1961 so that from a management and organizational standpoint conduct of the survey in the period scheduled should not be untimely.

3. In view of the importance of this program I am sure you will agree that I must use every proper management tool available to me to insure a totally effective program. Consequently, I have directed the Inspector General to proceed with this survey at the earliest practicable date. In recognition of certain problems which you undoubtedly have in mind and to insure that the scope of the survey is properly planned, General Carroll will be in touch with you and also with General Greer in the near future. The exact timing and scope of the survey will be finalized at that time.

THOMAS D. WHITE
Chief of Staff

SECRET

EYES ONLY

[illegible]

The Polaris A-3 [illegible]

[illegible]

retrofit the existing cruiser [illegible]

Installation of the missile [illegible] the useful role of this force [illegible] this information is correct [illegible] objective of the Navy is to [illegible]

It is my understanding that [illegible] the JCS for a determination of [illegible] I am also aware that Dr. York [illegible]

EYES ONLY

EYES ONLY

Cy- Gen. [illegible]
(per Col. [illegible]) [illegible]

EYES ONLY

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DEPARTMENT OF THE AIR FORCE
OFFICE OF THE CHIEF OF STAFF
UNITED STATES AIR FORCE
WASHINGTON, D. C.

[illegible]

[illegible]

[illegible]

[illegible] to the SAMOS operational [illegible]

As for the general [illegible] it is expected that the [illegible] Navy will assist in their [illegible] Department of Defense has [illegible] for determining Service [illegible] Image Programs. This [illegible] and should have an effect on [illegible]

In response to your quest[illegible] and SAMOS, the attached summary [illegible]

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[illegible]

[illegible]

[redacted]

[illegible]

[illegible] in Financial Plan

[illegible]

[illegible] ([illegible])

MIDAS

[illegible] (Operational)

[redacted]

[illegible] in Financial Plan

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HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
UNITED STATES AIR FORCE

[illegible]

[illegible] Advisory Committee [illegible] agencies would [illegible] of the technical [illegible] informed and, perhaps, [illegible] initiative in developing [illegible] of which it is capable. This [illegible] any charges that the Air Force [illegible] its own parochial purposes [illegible] very important and could [illegible] for the conduct of the program.

We should also concern ourselves with [illegible] coming launching of the first [illegible]

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[illegible]

2. [illegible] (__ September 1960) [illegible] propaganda [illegible]

3. The [illegible] position [illegible] development and could [illegible] could conceivably serve to [illegible]

4. A successful SAMOS launching could [illegible] that it could serve the purpose [illegible] inspection and monitoring [illegible] proposals.

5. In like manner, the SAMOS could [illegible] toward an open world and thereby [illegible]

6. One of the Soviet lines [illegible] like to play the U-2 theme. [illegible] that such flights (U-2) would [illegible] the Soviet bombast.

7. The SAMOS launching should be considered [illegible] ment in our research and development [illegible] launching would require a subsequent [illegible] appropriate time might exist to [illegible] sequent decision might be hard to [illegible] required as to the "right" time. [illegible] occur in arriving at such a position [illegible] in a situation similar to that existing [illegible] where we have for a prolonged period [illegible] weapons.

8. There is a good possibility that the [illegible] immediately to a U. S. reconnaissance sat[illegible] in the past by the fact that the Soviets [illegible] TIROS (U[illegible]) [illegible] The Soviets might [illegible] in order [illegible] recognition [illegible]

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[illegible]

... beyond ... photographic ... [illegible]

2. Research and development ... and subsequent SAMOS launching ... maintain the security ... friendly partners ... the ... [illegible]

3. In the event agreement ... SAMOS development will ... contributing to ... for example, would logically ... guard against surprise attack ... would look forward to working ... results (or photographic take) ... organization or similar body when ... effective basis.

4. As a by-product of the primary ... ment is expected to make ... benefits will accrue in such fields ... flood and erosion control, natural resources ... [illegible]

A public line which makes the above ... spokesmen preferably in advance of the ... avoid the "Spy in the Sky" theme which ... tends to support the Soviet propaganda ... naissance activities".

SECRET — EYES ONLY

SECRET

SECRET EYES ONLY

DEPARTMENT OF THE AIR FORCE
OFFICE OF THE CHIEF OF STAFF
UNITED STATES AIR FORCE
WASHINGTON, D.C.

4 August 1960

Dear Bennie:

I have your memorandum of 1 August and have already talked to you on the phone about the major result, namely, the assignment of General Greer to you as of now. I have also directed that he be given top priority in the assignment of needed assistants. In this connection, I told Greer, who I understand proceeded immediately to Patrick, that he should get himself established at his new post, and then have such adequate time as he needs to make an orderly permanent transfer.

As to the Science Advisory Committee to the Secretary of the Air Force, it is my opinion that we have too many advisory committees now, and undoubtedly a new one will be set up here in the Pentagon dealing specifically with SAMOS. I have talked this over with Dr. Charyk and we will keep an eye on the needs in this respect. I am sure that there will be some OSD participation in whatever research and development guidance comes out of the Pentagon and we should not complicate things by setting up a committee on our own at this time. Incidentally, Dr. Kistiakowsky personally welcomed the idea of our naming a "Mr. SAMOS."

You mentioned the need to reaffirm the ARDC charter for the conduct of the SAMOS program. I need your further guidance as to just what you want, and I will have a prompt look at it if you will tell me what you have in mind. It has been my impression, and seems to be that of Bim Wilson, that the matter is well in hand presently.

I think we have acted promptly in this matter and I am glad you brought it to my attention. I count on you to keep me informed and give me your suggestions in the future as you have been doing in the past. Best wishes.

Sincerely,

THOMAS D. WHITE
Chief of Staff

Lieutenant General B. A. Schriever
Commander, ARDC
[illegible]
Washington [illegible]

[illegible]

[illegible] Mr. SAMOS.

You mentioned the [illegible] conduct of the SAMOS program [illegible] just what you want, and [illegible] me what you have in mind. [illegible] be that of Bim Wilson, that the [illegible]

I think we have acted [illegible] brought it to my attention. [illegible] give me your suggestions in the [illegible] past. Best wishes.

Sincerely,

THOMAS D. WHITE
[illegible]

Lieutenant General B. A. Schriever
Commander [illegible]
Andrews [illegible] Base
Washington [illegible]

SECRET

[illegible]

[illegible] support this [illegible]

It appears that the [illegible] in the initial stages of the [illegible] the relative immunity of [illegible] their employment with [illegible] effective and reliable warning [illegible]

There have been many [illegible] past year. The attached report [illegible] composed of outstanding scientific [illegible] of the MIDAS development and [illegible] highest priority.

The urgency and importance of [illegible] ments and the reasonable certainty [illegible] that the concurrent development [illegible]

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[illegible]

With the present [illegible] and management [illegible] approval for [illegible] undesirable delay [illegible] and loss of valuable time [illegible]

I strongly recommend [illegible] a positive decision to proceed [illegible] order that the Air Force [illegible] development and with the [illegible] this way, we can assure the early [illegible] lection and alarm weapon system.

ORIGINAL SIGNED
B. A. SCHRIEVER

[illegible]

5 Incls:
1. Memo Sec'y Def
   12 Feb 59 (S)
2. Ltr to CofS (USAF)
   3 Nov 58 (S)
3. Ltr to JCOS
   16 Dec 59 (S)
4. Rep ad hoc TAB
   26 Feb 59 (S)
5. Excerpt ad hoc ADS
   15 Jan 59 (S)

SECRET

MEMORANDUM [illegible]

[illegible]

In the past [illegible] diminished the MIDAS [illegible] development to [illegible]

Presentations [illegible] the Ad Hoc Technical Adv[illegible] Program and technical [illegible] tatives from your off[illegible] Advisory Board have [illegible] technical feasibility and [illegible] have both endorsed dev[illegible] The Air Force feels that this [illegible] U. S. early warning network [illegible] cations.

It is my understanding that [illegible] your approval and augmentation of [illegible] the Air Force will reprogram availa[illegible] the complete FY 1959 program.

I would like to reemphasize the [illegible] of development of this system and its [illegible] warning so necessary to air defense [illegible]

It is requested that expeditious [illegible] MIDAS program and fund augmentation [illegible] ARPA in order to attain the presently [illegible]

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[illegible]

SUBJECT: (U) [illegible]

[illegible]

1. [illegible]

2. This command [illegible] and recognizes the contribution [illegible] development of [illegible] military contribution [illegible] emphasize the warning need [illegible] with priority over the biomedical [illegible] developed should enjoy [illegible] in the warning role. However [illegible] that reliability and availability [illegible] program should be afforded priority [illegible]

3. This correspondence classified [illegible] regarding future missile programs. (U)

[illegible]
Commander [illegible]

C O P Y

[illegible]

[illegible]

2. Since [illegible] of the Ballistic [illegible] Research Project Agency [illegible] evident that the [illegible] is feasible and [illegible]

3. [illegible] resulting reduction in [illegible] to electronic warfare [illegible] space objects and [illegible] reduce the effectiveness [illegible] that an alternate means [illegible] complementary to radar [illegible] lives up to its design spec[illegible] providing an independent system [illegible] to known countermeasures.

4. It is strongly recommended [illegible] infrared tracking system be [illegible]

Copy Furnished:
C/S USAF as Exec.
Agent for NORAD

C

[illegible]

EVALUATION OF [illegible]

OF INFRARED MISSILE [illegible]

FROM SATELLITE [illegible]

Dr. Carl F. J. Overhage, Lincoln [illegible]
Massachusetts Institute of Techno[illegible]
Dr. Sidney Passman, The Rand Corpor[illegible]
Dr. Edward M. Purcell, Harvard Univ[illegible]
Dr. Chalmers W. Sherwin, University [illegible]

26 February 1959

[illegible]

[illegible] review board has [illegible] the technical capability [illegible] a satellite vehicle.

1. The detectability of [illegible] been convincingly demonstrated [illegible] empirical data. The signal strength [illegible] so little doubt that detection [illegible] (about 3,000 miles) can be [illegible] when looking above the horizon [illegible]

2. Detection of the missile [illegible] ground poses no serious problem [illegible] is concerned but lower [illegible] of spatial background fluctuation [illegible] from balloon observations [illegible] information is needed on background [illegible] complexities of necessary discrimination [illegible] of the signal to background ratio [illegible] of the missile at all aspects and [illegible] propulsive system to another is needed [illegible] to expect serious disappointment in [illegible] nevertheless emphasize the urgency of [illegible] experiments with aircraft, balloons, and [illegible]

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[illegible]

[illegible]

[illegible] distribution by hostile [illegible]

Discussion.

The attack-alarm [illegible] infra-red detection equipment [illegible] flames of [illegible] line-of-sight [illegible] friendly territory. The [illegible] detecting and giving warning of [illegible] importance.

Under these circumstances, [illegible] development of the attack-alarm system [illegible] priority in the 117L program. [illegible]

C

O

P

Y

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[illegible]

[illegible] General [illegible]

[illegible]

[illegible] major [illegible]

a. ARPA [illegible] [illegible] [illegible] [illegible] [illegible] with [illegible] [illegible] funding status [illegible] [illegible] and pro[illegible] [illegible] [illegible] to ARPA [illegible] opportunity to place [illegible] Force control. In this [illegible] and recommendations [illegible] again emphatically urge [illegible] program.

b. ARPA funding support [illegible] marked by changing decision [illegible] type planning for conduct of the [illegible] plan and execution of that plan in [illegible] production, test and operation [illegible] impossible. I discussed this matter [illegible]

[illegible] I received the [illegible] 1969, [illegible] outlined [illegible] dated 30 January 1970, [illegible] our plan for the [illegible] program [illegible] by the [illegible]

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[illegible] SAMOS [illegible]

c. A [illegible] limited availability [illegible] the operating position [illegible] much discussed [illegible] Air Council [illegible] that Launch Complex [illegible] SAMOS Program [illegible] Considerable [illegible] requirements for the operational [illegible] If SAMOS is deprived the [illegible]

d. There is growing [illegible] construction and use of the [illegible] R&D launches are increasing [illegible] launch schedule. Definitization [illegible] at Pt. Arguello for SAMOS [illegible] becoming clear that operational launch [illegible] that site.

In view of the national importance [illegible] grave impact delayed decisions can have [illegible] satisfy national intelligence requirements [illegible] Air Force position be established regarding [illegible] funding actions be taken to permit implementation [illegible] required in support of that position, and [illegible] levels to resolve the AF/Navy positions regarding [illegible] problem.

Sincerely,

B. A. SCHRIEVER
Lieutenant General, USAF
Commander

SECRET

Col Appold

1. Letter is too long and attempts to be constructive.

2. It doesn't have the punch needed.

Outline

a) Warning of BW attack is matter of greatest national urgency — Refer to attachments.

b) IR - Sat - appears best way to accomplish.

c) Tech. fears confirmed by outstanding scientific [illegible] file (references)

Urgency + Tech fears

strongly urges & justifies
Concurrent's approach. Also
streamlined administrative
procedures in Part.
e) To date programs
tions is inadequately
funded - does not allow
Concurrency - and admin-
istratively bundled in
impossible ways?
Govt ~~[illegible]~~
Speakers
On funding - and examples
of administrative problems
game techniques
f) Indicate delay in
programming due to ~~[illegible]~~
budget position

delays because of
administrative red
tape and technical
expertise exercised
by who ever is handy
Last example -
Dr — (air Defense)
under Yeh -

Bis

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AIR FORCE BALLISTIC MISSILE DIVISION
HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
UNITED STATES AIR FORCE
Air Force Unit Post Office, Los Angeles 45, California

REPLY TO
ATTN OF: WDZ

SUBJECT: (U) MIDAS-Personal Letter to Dr. York

28 AUG 1959

TO: ARDC (Lt General Schriever)
Andrews AFB
Wash 25, D.C.

1. The attached draft of a proposed personal letter to Dr. York has been prepared and submitted in accordance with your desires.

2. Dr. York was given a 20 minute briefing on MIDAS during his visit to AFBMD on 19 August 1959. Material covered included scientific and engineering data on which the MIDAS system is based, the design solutions examined and underway, the technical parameters of the present design concept and why they were chosen, and a description of the research, development and test program and how it highlights the problems identified and recognized by LMSD, AFBMD, ARPA and other technical review groups.

3. The inadequacy of the FY-60 funding was pointed out to Dr. York in summary statements after the briefing. His reply was, in effect, [illegible] the MIDAS is funded at a higher level it must be done at the expense of other program reductions - there are only so many dollars.

CHARLES H. TERHUNE JR
BRIGADIER GENERAL, USAF
VICE COMMANDER

1 Atch
Draft letter to Dr. York (S) WDZ8-1, 1e,
w/5 atchs: (1) Rpt of Ad Hoc Tech Adv Bd
to ARPA (S) (10185631) (2) Excerpts fr
Final Rpt of Ad Hoc Com on Air Def Sys
dtd 15 Jan 59, SAB (S) WDZP-1 (3) Memo fr
Sec of Def, 12 Feb 59 (S) WDCPI-63 50
Series A (4) Memo to CofS, USAF, subj (U)
Priority of WS 117L Prog for Early Warning
8 Nov 58 (DWL-SAC/ARDC) (5) Ltr to ICS fr
Gen Partridge, subj WS 117L Infrared
Satellite Prog (S)

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D R A F T

Dr. Herbert F. York
Director of Defense Research and Engineering
Washington 25, D.C.

Dear Dr. York:

1. I have just learned of the decision to place some further severe restrictions on the MIDAS development program which will jeopardize the early attainment of an operational capability. This decision causes me grave concern. I have little doubt the advent of the ballistic missile with its inherent capability of massive, annihilating, rapid attack has made the major military problem facing this nation one of developing adequate strength to deter all-out war. The role of the MIDAS has not heretofore been directly associated with our deterrent posture. Yet it is obvious that with ballistic missiles traveling 5,000 miles in approximately 30 minutes, the value of early warning of enemy ICBM launchings has assumed unprecedented importance. Through our policy of peaceful aims we have deliberately conceded the Soviets have the initiative. However, if positive warning that a Soviet missile attack has been launched exceeds in minutes the reaction time of our own missiles, and they know it, they would be strongly deterred from initiating such an attack. The MIDAS, in conjunction with BMEWS, makes this possible.

2. As early as 1947 the Air Force established at RAND a program of study and experimentation to establish the feasibility of and criteria for a reconnaissance satellite. In 1954, when the Air Force Ballistic Missile Division was esta[illegible] we realized that the expedited development of the ballistic

missile must be accompanied by the simultaneous development of a method of deterring its use. At that time the Air Force Satellite Program was transferred to the AFBMD to expedite its development. Since that time the requirements have been defined in detail and their urgency greatly increased by our assessing our own technical advances and technical intelligence of Soviet's activities. During this period all aspects of the MIDAS has been thoroughly studied and evaluated by contractors to the AFBMD, my military staff and technical groups available to me in the AFBMD management structure. I have personally examined the progress made and have been satisfied with the progress made before permitting each successive step in the development process to proceed.

3. The DISCOVERER tests now in progress are adding significant substantiation of the feasibility of the MIDAS system by providing an immense wealth of scientific and engineering data to provide for functional design and reliability improvements in the MIDAS system. In addition, the first MIDAS IR flight package has been delivered and is undergoing extensive laboratory system testing in conjunction with the companion ground gear prior to its first flight test. Although the first unit is not of operational flight quality, it's performance during the extensive ground tests verifies the fact that the performance requirements of an operational system, based on the design concepts used, is well within the capabilities of the present state-of-the-art. These conclusions are shared by technical groups outside the AFBMD who have examined the MIDAS system. Excerpts from the reports of these groups are attached for your [illegible]

2

4. Considering the urgency of the national requirements as stated by the Air Force, and verified by letters from CINCNORAD and CINCSAC (copies attached), I am convinced that the potential of the MIDAS must be exploited fully and expeditiously. Every effort must be made to compress time to the first operational capability by concurrency of development. To realize the earliest possible capability in MIDAS, steps must be taken now to provide for the industrial bases for its production, operational facilities for its operation and maintenance, command and communications system for its operational control, the supply and transportation system for its support, training facilities and instructors, and finally, organization and trained people to operate the system. This management concept of concurrency, first used on the ATLAS at AFBMD, provides for the integration of each element of the total weapon system into a single plan, program and budget and implemented concurrently, consistent with lead time requirements.

5. MIDAS development plans submitted and presented to the ARPA and the funding associated with these plans have been based on the concept of concurrency for the weapon system. Fund limitations placed on the R&D program in FY-60 and the associated stretch-out will seriously restrict development activities and will delay the early attainment of an operational system. Delay in the approval and appropriate funding of MIDAS in FY-60 and 61 as an operational system based on the concept of concurrency will cause further and even greater delay in the attainment of a capability that is gravely important to the national survival. Technical problems associated with the detection of a ballistic missile against daytime [illegible] background fluctuations are fully recognized as well as the seri[illegible] problem of the space system reliability. The develop[illegible] [illegible] to emphasize the early solution of these

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problems which although serious appear to be solvable. I strongly urge that the calculated risks involved in the development of the MIDAS system under the concept of concurrency and under the highest national priority is justified by the urgency of the requirement and the existing proof of its feasibility.

Sincerely

5 Atch

1. Rpt of Ad Hoc Tech Adv Bd to ARPA (S) ([illegible])
2. Excerpts fr Final Rpt of Ad Hoc Com on Air Def Sys[illegible] dtd 15 Jan 59, SAB (S) WDZR-1
3. Memo for Sec of Def, 12 Feb 59 (S) WDCHD 58-10 Series A
4. Memo to Cdr [illegible] subj (U) History of WS 117L Prog for [illegible] 5 Nov 58 (DWL-SAC/MIDAS)
5. Ltr to [illegible] subj: WS 117L Infrared Satellite Prog (S)

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5 August 1960

General Thomas S. Power
Commander in Chief
Strategic Air Command
Offutt Air Force Base, Nebraska

Dear General:

I am in complete agreement with your letter of 28 July. I will discuss it with General [illegible] in order that we can initiate specific plans toward the objective you have indicated.

For your information, General Greer is being immediately assigned to BMD to become [illegible] management details for the conduct of the overall reconnaissance satellite program which should be satisfactory to our [illegible].

I will see to it that you are completely briefed and constantly kept informed on all aspects of this program.

Sincerely,

B. A. SCHRIEVER
Lieutenant General, USAF
Commander

Sibyl:
Show to Gen Cooper, Watson + Appold —
Then file one copy with my correspondence with the [illegible]
[illegible] — Col Appold
Roger

SECRET

[illegible]

[illegible]

Washington [illegible] D. C.

[illegible]

[illegible] at Vandenberg AF [illegible]
Discoverer Tracking [illegible]
[illegible] indicated the [illegible]
[illegible] of the [illegible] system [illegible]

[illegible] the visit [illegible]
[illegible] on an informal basis [illegible]
[illegible] gained during the R&D [illegible]
[illegible] personnel. I am [illegible]
[illegible] dictate the eventual [illegible]
Nevertheless, I still feel that [illegible]
[illegible] people into the program [illegible]
the integrity of existing units [illegible]
[illegible] trainees while development [illegible]
ultimate decision is made, the [illegible]
system in the hands of [illegible]

I accept gladly your offer for a briefing [illegible]
Washington meetings by your A [illegible]
haps, at that time an initial [illegible]
lem discussed above. However, I believe [illegible]
reviewed very closely by the A [illegible]
to determine its feasibility without [illegible]
interested parties that we are attempting [illegible]
ational before the R&D has been fully [illegible]

SECRET

CONFIDENTIAL [illegible]

[illegible]

MEMORANDUM FOR GENERAL [illegible]

SUBJECT: SAMOS Program

1. Since the [illegible] have been pushing for an [illegible] program. There have been [illegible] by Dr. Killian under the President's Science Advisory Committee [illegible] other headed by Dr. Bill Baker (BTL) [illegible] purpose are reviewing and evaluating the SAMOS [illegible] they will, in general, be critical in their [illegible].

2. While we should concern ourselves [illegible] relating to the past are necessary to create [illegible] conduct of our space programs and particularly SAMOS has been extremely difficult at the operating management level. [illegible] and ARPA have been caught in crossfire of confused direction and [illegible] area of organization and technical direction [illegible] ARPA was most unsatisfactory. Secondly, in the area of [illegible] the intelligence community has never quite gotten together. [illegible] in the area of operational control there has been continuing [illegible] This situation at higher levels, coupled with our [illegible]

[illegible]IDENTIAL - EYES ONLY

[illegible] has given [illegible] apparently who would [illegible] the military. Fortunately, the majority of [illegible] associated with the government [illegible]. However, I think the situation at the moment [illegible] which I have just listed.

3. In view of this I believe that bold action is required to forestall decisions at higher levels which might jeopardize the Air Force role in space. Even more important than Air Force interest is the national interest. Despite any assertion to the contrary, the Air Force possesses at least 75% of the resources and competence which exist in this country for the development of space systems. I think this can be shown by the record of achievement and by an inventory of manpower and facility resources which we have available.

4. I am personally driving to muster and align all available ARDC resources to meet the expanded task. In this connection, I am attaching for your information a recent TWX to General Ritland. This was followed by a series of conferences at AFBMD, including discussions with Dr. Ivan Getting and Ross Gilpatric who respectively are President and Chairman of the Board of Aerospace Corporation. I am confident that the Air Force can do the job better and more quickly than any other government agency. To do so will require full support from all levels in the Air Force.

[illegible] recommend [illegible]

[illegible] issuance of a directive [illegible]

[illegible] and [illegible]

[illegible] for the [illegible]

[illegible]

[illegible] the proposed [illegible]

procedures agreed to by the [illegible]

c. [illegible] encompassing [illegible]

[illegible] concept.

[illegible] establish a Science [illegible]

Air Force to function in a [illegible]

Committee for ballistic missiles [illegible]

d. Immediately assign General [illegible]

Also make available several experienced [illegible] colonels [illegible]

within 48 hours.

5. As to the assignment of General Gre[illegible]

Anderson Study Group recommendations are implemented [illegible]

ATCGM will cease to exist. I believe this opinion is shared by other members of the study group.

B. A. SCH[illegible]
Lieutenant [illegible]
Commander

1 Attachment
Msg to [illegible] July 195[illegible]
C0-07[illegible]

[illegible]

JOINT MESSAGEFORM

PRECEDENCE

ACTION: [illegible] IMMEDIATE

FROM

[illegible] ANDREWS AFB MD

TO

[illegible] LOS ANGELES CALIF

[illegible] HANSCOM AFB MASS

SECRET FROM RDC 25-7-27

PERSONAL FROM GEN SCHRIEVER TO [illegible]

ALTHOUGH WE HAVE NOT RECEIVED [illegible] THE SAMOS PROGRAM, IT IS CERTAIN [illegible] AND PHOTOGRAPHIC PORTIONS WILL BE [illegible] EFFORTS TOWARD ACCELERATION WILL BE [illegible] I AM CONVINCED THAT FOR THE COUNTRY, FOR THE [illegible] AND FOR ARDC THE SINGLE MOST IMPORTANT DEVELOPMENT [illegible] THE ATTAINMENT OF RELIABLE RECOVERY [illegible] ACCOMPLISH THIS WE MUST BRING TO BEAR ON [illegible] BY WHATEVER MEANS NECESSARY, ALL THE RESOURCES WITHIN ARDC AS WELL AS FROM THE OUTSIDE [illegible]

DATE	TIME	MONTH	YEAR
2[illegible]	[illegible]	[illegible]	1960

SYMBOL: RDC

TYPED NAME AND TITLE (Signature not required)

PHONE

SECURITY CLASSIFICATION

NR. OF PAGES: [illegible]

[redacted]

SIGNATURE: SIGNED

TYPED NAME AND TITLE

B. [illegible]

Lieutenant General, USAF

Commander

DD FORM 1 MAY 55 173

[illegible] WHICH WILL BE USED UNTIL EXHAUSTED

JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY CLASSIFICATION

FROM: [illegible]

[illegible] ADEQUATE COMPREHENSIVE PROGRAM [illegible] FOUR PARTS: A. DISCOVERER. B. SUFFICIENT [illegible] C. [illegible]PETITIVE SAMOS (ATLAS) WITH NEW CAMERA. D. RECOVERY SYSTEM (FASTEST POSSIBLE) RELATED TO BUT SEPARATE FROM PARTS A, B, AND C. FOR EXAMPLE, THE AVCO DRAG BRAKE. TO PROPERLY MANAGE AND TECHNICALLY DIRECT SUCH A COMPREHENSIVE PROGRAM, CENTRALIZED CONTROL AND OUTSTANDING TECHNICAL PERSONNEL IN ADEQUATE NUMBERS ARE MANDATORY. WE MUST TAKE IMMEDIATE AND EXTRAORDINARY ACTION TO ACCOMPLISH THIS END. AEROSPACE MUST IMMEDIATELY GET INTO THE ACT WITH BOTH FEET. TO DO SO THEY CAN TAKE A LEAF FROM THE R-V BOOK OF 1954. ALSO WADD PERSONNEL HAVE MUCH TO CONTRIBUTE. PARTICULARLY THEY SHOULD BE GIVEN THE BULK OF THE LOAD IN CAMERA AND OTHER SENSING EQUIPMENT DEVELOPMENT. PARA. I WOULD LIKE FOR YOU TO SET UP TWO CONFERENCES ON 28 AND 29 July ~~AUGUST~~ TO DISCUSS THE MATTERS OUTLINED ABOVE, ONE TO COVER RECOVERY SYSTEMS AND THE OTHER TO COVER RECCE SENSING EQUIPMENT PRIMARILY CAMERA DEVELOPMENT. CONFERENCES SHOULD BE LIMITED TO

C0507[illegible]

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2	3	SECRET	

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JOINT MESSAGEFORM - CONTINUATION SHEET

[illegible] ING PERSONNEL [illegible]

[illegible] PROPERLY [illegible]

[illegible] AS SUCH AS SHOULD [illegible]

[illegible] FOR A PORTION OF [illegible]

SYMBOL	PAGE NR	NR OF PAGES	SECURITY CLASSIFICATION	INITIALS
BDC	3	3	[illegible]	

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[illegible]

MEMORANDUM FOR GENERAL WHITE

SUBJECT: SAMOS Program

1. Since the U-2 incident [illegible] have been pushing for an [illegible] program. There have been [illegible] by Dr. Killian under the President's Science Advisory [illegible] other headed by Dr. Bill Baker [illegible] groups are reviewing and evaluating the SAMOS Program [illegible] they will, in general, be critical in their [illegible]

2. While we should concern ourselves with the future, a few comments relating to the past are necessary [illegible] The conduct of our space programs and particularly SAMOS has been [illegible] difficult at the operating management level. ARDC and A[illegible] have been caught in crossfire of confused direction and guidance. First, in the area of organization and technical direction [illegible] with ARPA was most unsatisfactory. Secondly, in the area of requirements the intelligence community has never quite gotten together. Lastly, in the area of operational control there has been continuing controversy at JCS level. This situation at higher levels, coupled with our problems in the DISCOVERER

[illegible]ENTIAL - PERSONAL

[illegible] tary, has given ammunition to [illegible] university who would prefer [illegible] the military. Fortunately, the majority of [illegible] satisfied with the government [illegible]. However, I think the situation at the moment is quite [illegible] I have just listed.

3. In view of this I believe that [illegible] action is required [illegible] decisions at higher levels [illegible] Air Force role in space. Even more important than Air Force interest is the national interest. Despite any assertion to the contrary, the Air Force possesses at least 75% of the resources and competence which exist in this country for the development of space systems. [illegible] the record of achievement and by an inventory of [illegible] resources which we have available.

4. I am personally driving to muster and align all available ARDC resources to meet the expanded task. In this connection, I am attaching for your information a recent TWX to General [illegible]. This was followed by a series of conferences at AFBMD, including discussions with Dr. Ivan Getting and Ross Gilpatric who respectively are President and Chairman of the Board of Aerospace Corporation. I am confident that the Air Force can do the job better and more quickly than any other government agency. To do so will require full support from all levels in the Air Force.

[illegible]

... recommend the following action:

a. ... issuance of a directive ... [illegible]

... Board and ... [illegible]

... the proposed ... [illegible]

... Air ... [illegible]

... the proposed ... [illegible]

... procedures agreed to by the ... [illegible]

... These encompass ... [illegible]

... concept.

c. Establish a Science Advisory Committee ... [illegible] Air Force to function in a role similar ... [illegible] Committee for ballistic missiles.

d. Immediately assign General ... [illegible] Also make available several experienced ... Colonels ... [illegible] within 48 hours.

5. As to the assignment of General Gran... [illegible] my opinion ... [illegible] Anderson Study Group recommendations ... [illegible] AFCGM will cease to exist. I believe this opinion is ... [illegible] other members of the study group.

B. A. S... [illegible]
Lieut... [illegible]
Comma... [illegible]

1 Attachment:
Msg ... [illegible] July 1960
C0-... [illegible]

...FIDENTIAL

[illegible]

[illegible] ON RDB [illegible]

[illegible]

[illegible] will be directed [illegible]

[illegible] and for ARDC the [illegible]

of reliable recovery systems [illegible]

the problem, by whatever [illegible]

as well as from the outside [illegible]

should have four parts:

A. DISCOVERER,

B. Current SAMOS E-5,

C. Competitive SAMOS (ATLAS) with new camera,

D. Recovery System (fastest possible) [illegible] separate from parts A, B, AND C. For example, the AVCO drag brake.

To properly manage and technically direct such a comprehensive program, centralized control and outstanding technical personnel in adequate numbers are mandatory. We must take immediate and extraordinary action to accomplish this end. Aerospace must immediately get into the act with both

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[illegible] so that they can [illegible]

[illegible] have much to contribute [illegible] they should be [illegible]

[illegible] of the load [illegible] and [illegible] development.

I would like for you to set up two conferences [illegible] only to

discuss [illegible] outlined above and to cover [illegible]

[illegible] power accompanying equipment particularly [illegible] development.

Conferences should be limited [illegible] hours [illegible] including [illegible]

Only key personnel in the area of management and technical support should

attend. It is my desire to be present for a portion of each conference.

30-0266

CHIEF

HEADQUARTERS
AIR FORCE BALLISTIC MISSILE DIVISION (ARDC)
UNITED STATES AIR FORCE
Air Force Unit Post Office, Los Angeles 45, California

Lt General B. A. Schriever
Hq Air Research and Development Command
Andrews Air Force Base
Washington 25, D.C.

Dear Ben:

During the past two years there have been a number of attempts to develop "cover" for the SAMOS flight program. These proposals have ranged the spectrum from white to gray to black. I know that you will recall Red Sheppard's strong arguments for a white program, Fritz Oder's work on a gray "scientific" program, and the abortive efforts of DCS/P&P, Hq USAF, to make SAMOS completely black.

Next week, the facility booster for SAMOS will go on stand at Arguello; in less than 60 days, the first complete SAMOS will be erected. It will be impossible to conceal this event, and national interest could be triggered sufficiently to force the "SAMOS question" into the public domain. I don't believe we can afford to gamble on the outcome of such a debate; rather, we should urge all those who are understandable and knowledgeable to act now to develop a SAMOS information and security plan designed to serve the common (national) interest and to pre-empt the offensive, especially as far as public opinion is concerned.

Dick Leghorn has apparently convinced certain segments of the State Department that the SAMOS program as presently constituted should be supported as a national asset. In recent discussions with him, I have been impressed by the novel suggestion that the SAMOS program could be operated effectively on a partly white basis, using the degree of optical resolution as a basic criterion for dividing the program. The plan would call for announcing to the world - particularly to the United Nations Organization - our intention to test space reconnaissance-inspection equipment, using read-out techniques. We would plan to achieve a resolution of about 200 feet (the rough equivalent of the resolution of the LUNIK camera, reduced to a 300-mile earth-orbit) at our central readout station and could release samples of these photographs to the scientific community, the international press, interested allies, and to the United Nations. More refined resolution capabilities would disappear into a controlled Air Force program.

Dick feels that even at [illegible] concept is [illegible] vulnerable to political countermeasures. Accordingly, the Air Force should insure that it has a closely held program which can be [illegible] in lieu of, or as an adjunct to, an "open" SAMOS program. The one [illegible] gambit is ostensibly to cancel the recovery portion of SAMOS and to reinstate it on a clandestine basis. I believe a serious drawback to this concept lies in the fact that it follows patterns already used in the past, and, if recognized, might jeopardize existing programs.

I think Dick should be encouraged in his attempts to get with State Department approval for an "open" SAMOS program. [illegible] the cover plans advanced to date, this appears to have the best chance for success. Last year's DCS/[illegible] effort convinced everyone that attempts to go black are completely out of the question. A gray program would be clumsy to operate and would invite [illegible] criticism from both friend and foe. An all-white program would call for extraordinary - possibly foolhardy - boldness, and would essentially force us to announce the exact nature of all [illegible].

A favorable outcome to the Summit Meetings, with some agreement regarding the beginnings of an [illegible] proposal, will enhance the credibility of this proposal. [illegible] one could also explore the potential utility of SAMOS [illegible] data placed at the disposal of the International [illegible] Organization.

Dick Leghorn plans to take this idea forward to a number of his acquaintances in government. He has had some discussions already with Jim Walsh. I trust that you may find these observations useful in your discussions with Dick and others.

~~SECRET~~

HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
UNITED STATES AIR FORCE
ANDREWS AIR FORCE BASE
Washington 25, D.C.

REPLY TO ATTN OF: RDY

11 July 1960

SUBJECT: MEMORANDUM FOR THE RECORD

TO: General Schriever

1. On the morning of 5 July a briefing was given to selected members of the Air Staff including Generals LeMay, Strother, Wilson and Walsh. On the afternoon of the 5th the SAMOS Development Program was presented to Messrs. Sharp, Charyk, Perkins, and also attending this meeting were Generals Schriever, Wilson, Walsh and Watson. After a discussion of the general Development Program which was in accordance with the guidance provided by Dr. Charyk to the Air Staff, further refined by letter from General Wilson dated 1 June, Dr. Charyk suggested that a discussion of the general parameters of the new SAMOS Development Program be discussed with him on the 6th of July at 1430. Upon returning to ARDC, General Watson and Colonel Nunziato met with General Schriever and decided on a specific program to be presented to Dr. Charyk on the 6th of July. This program was discussed with Dr. Charyk, who agreed in essence with our approach as follows:

a. The Air Force would pick up the Discoverer Program in the summer of 1961 (about July) and program the six additional shots that have been authorized. In the meantime, regarding the sixteen shots that are scheduled between July 1960 and June 1961, every effort would be made to improve reliability. Subsequent to June of 1961 consideration would be given to installing a 36" panoramic camera if it is determined to be advisable. This would be based on the success attained in the previous sixteen shots. The transfer of this program to the Air Force is based on a TWX from across the river direct to AFBMD. Concurrently with the Discoverer Program Dr. Charyk authorized that a feasibility study be immediately initiated on the ATLAS Spin Program with STL. This program, if approved, would complement the Discoverer Prog.am.

b. A new Recovery Program would be established using a modified THOR. BMD would analyze and determine the final configuration of the THOR with solid boosters and perhaps elongated tanks. This program would involve a second stage that could be either the ABLE STAR (spin stabilized) or the AGENA. This program would also involve a lifting re-entry vehicle. If the Air Force is permitted to go out on source selection after the meeting with Dr. York on the 18th, it is estimated that a source selection board could complete its findings within sixty days thereafter and that a first shot of this modified THOR could be accomplished in December 1961.

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This new Recovery Program would involve an expanded program of alternate payloads. This new program could include perhaps two re-entry bodies and probably three to four camera configurations. The objective would be to get a ground resolution of at least twenty feet or better. The E-5 package which is part of the old SAMOS Program is scheduled for first firing in September 1961. Since this is also a recoverable package utilizing the AVCO 1800 pound re-entry vehicle, boosted by an ATLAS, the E-5 package would become part of the new Recovery Program.

c. In addition to the programs mentioned above the Air Force would continue with the readout portion of the SAMOS Program as envisioned in the January Development Plan. The E-1 package (100 feet resolution) first firing will occur in September 1960. Three E-1's are scheduled, and three are provided as back-up. The E-2 readout package which is scheduled for April of 1961, will give twenty feet resolution. Five are in the present program; however, three are being protected on a lead time basis.

2. It has been ascertained that there are sufficient equipments available to provide exploitation of any intelligence from the R&D take of the E-1 E-2 systems. However, Dr. Charyk did mention that thought should be given to expanding R&D-wise the Subsystem I Program to insure that it will be able to handle not only the take from the early readout R&D program, but also such take that may accrue from the recovery systems. This aspect of Charyk's comments will require further study by BMD. Charyk did mention that a Special Advisory Committee had been established with Dr. Baker, Bell Labs, as the Chairman, to review the overall national satellite program. Indications are that the Committee will conclude its findings before the end of July and will probably submit to the President, in August, an overall national program for the exploitation of satellites for intelligence. This will include not only the basic programs mentioned above but also the method by which the "take" will be handled.

3. In order to provide the back-up to the basic SAMOS Program it was recommended to Dr. Charyk that he approve the additional procurement of five ATLAS and five AGENA vehicles. Dr. Charyk felt that this was a reasonable request.

4. To assure sufficient launch facilities for the expanded SAMOS Program it was recommended to Dr. Charyk that the Air Force immediately initiate action to construct two additional pads and a blockhouse adjacent to SAMOS Pads 1 and 2 at Point Argullo. Modification of Pad 75-1 for Discoverer Program has already been approved, however, the Pad would be further modified to handle the modified THOR at a slight additional cost.

5. It was suggested to Dr. Charyk that General Schriever intended to establish a Special Advisory Committee attached to the Undersecretary of the Air Force's Office, but essentially working with ARDC to assist ARDC in planning for the overall SAMOS Program. Charyk again referred to the Baker Committee and thought that this new committee would be unnecessary.

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of Defense Subcommittee of the [illegible] Appropriations Committee, 86th Congress (Military Construction [illegible]) [illegible] indicated that SAMOS is the [illegible] and I have given the reason for it.

We now have a limited SAMOS research and development program. [illegible] to it reluctantly, but expressed my concern to both General LeMay and Secretary [illegible] [illegible] of the 12 December briefing, ARDC, by [illegible] the overall research and development program [illegible] approximately [illegible] nine months and the proposed [illegible] or provide for any operational capability. (Msg [illegible] VC [illegible] and 5541, 16 December 1959)

The philosophy of concurrency should be given added emphasis. This obviously means we should try to develop operational facilities, as well as research and development facilities, and solve the technical problems as we go along. It should be possible to compress time in such areas as intelligence processing by avoiding construction, installing prototype equipment [illegible] ARDC contractors, replacing them as [illegible], thus establishing an R&D/operational continuum [illegible] the developer and the user until an agreed operational date.

As you know ARDC is to provide at Offutt a modest intelligence processing capability known as "Early Fix" to which all intelligence data will be transmitted directly from the [illegible] (as stipulated in AFCVC letter, 15 May 1959). This effort, in direct support of SAC, is to be an aid in filling the gap until an operational system is available. The contract to build the "Early Fix" facility was awarded on 27 April. However, on 19 May I received an information copy of a USAF (AFDAT) message directing ARDC to withhold this effort pending review by the Under Secretary of the Air Force of the proposed overall plan of intelligence data processing facility from "Early Fix."

Continual delays such as these seriously impair our opportunities to obtain data on Soviet ICBM's during the period it is most direly needed.

The SAMOS program requires a strong, centralized, purposeful management. If there were, for example, one Air Force agency

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[illegible] direction, one prime consideration [illegible] should be [illegible] without undue delay [illegible] intelligence system whereby [illegible] as well as general war tasks could be properly [illegible].

Sincerely

THOMAS S. POWER
General, USAF
Commander in Chief

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